

Notice of Allowability

Application No.

10/539,807

Applicant(s)

HONDA ET AL.

Examiner

Yong Chu

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/01/2007.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Claims 1-8 are pending.

Response to Arguments

Argument over rejection of claims 1,2, and 5-8 under 35 U.S.C. §103(a)

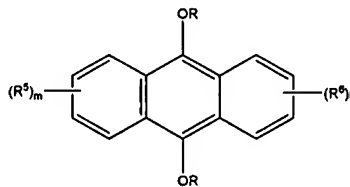
Applicant's arguments over rejection of claims 1,2, and 5-8 under 35 U.S.C. §103(a) have been considered, and found persuasive. The Examiners have carefully considered the interview record on 03/20/2007 and the remarks on 05/01/2007, and withdrawn the rejection of claims 1, 2, and 5-8 under 35 U.S.C. §103(a). See the details under Reason for Allowance of this Office action.

Specification

The objection over first paragraph of the specification does not contain continuing data to which the instant specification claims benefit from is withdrawn since the required information is disclosed in the filed ADS. Therefore, the objection is withdrawn.

Reasons for Allowance

Applicants instantly elected invention in claims 1-8 claim a process for producing



an anthracene diether represented by Formula (I)

characterized in that an aqueous medium containing the alkali salt of a 9,10-

anthracenediol compound is added to an organic solvent containing the etherifying agent to carry out the reaction.

The closest prior art of record is by Seitz et al. Synthesis, p686-688 (1986).

The prior art process is patentably distinct from the instantly claimed process, because the prior art reference is silence on the order of mixing the starting materials, but the instant application shows the criticality of the order of mixing alkali salt of a 9,10-anthracenediol compound with an organic solvent containing the etherifying agent. According to the original disclosure of the instant application, adding an aqueous medium containing the alkali salt of a 9,10-anthracenediol compound into an organic solvent containing the etherifying agent is critical, with unexpected results (significantly higher yield on the desired product) as shown in the Examples I and II as comparison with Comparative Examples I and II, which is added at reversed order with much less desired products. The prior art reference did not specify the order of mixing the starting materials. Therefore, claims 1-8 are allowed.

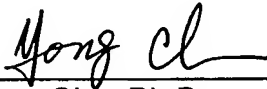
Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yong Chu, Ph.D.
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REBECCA ANDERSON
PATENT EXAMINER



Joseph K. McKane
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